U.S. FISH AND WILDLIFE SERVICE - SPOTLIGHT SPECIES ACTION PLAN

Common Name: Apache trout

Scientific Name: *Oncorhynchus apache* (Miller, 1972)

Lead Region: 2

Lead Field Office: Arizona Fish and Wildlife Conservation Office

Species Information:

Status: Threatened

Recovery Priority Number or Listing Priority Number: 14C

Recovery Plan: Apache trout (Arizona trout) Recovery Plan (USFWS 1983)

Most Recent 5-year Review: Initiated 2006 (74 FR 20714-20716)

Other: Apache Trout Recovery Plan (draft) 2nd Revision (USFWS 2007); A Business Plan for the Conservation of Apache Trout (National Fish and Wildlife Foundation [NFWF] 2008)

Threats: Four of the most significant threats to natural and reestablished Apache trout populations that exist today are (USFWS 2007, NFWF 2008):

- Non-native trout occupying historical Apache trout habitat.
- Marginal habitat in some of the smaller recovery streams.
- Artificial fish barrier failure, resulting in non-native trout reinvasion into recovery habitats.
- Potential impacts of climate change on trout streams.

Target: The 5-year goal for the species is to establish new populations in remaining designated recovery streams, secure barriers, remove non-native trout within recovery streams, and improve marginal habitat with the intent to initiate a delisting proposal.

Measure: The intent of the actions outlined for the next 5 years is to increase the number of recovery populations by at least two, secure habitats by repairing and maintaining barriers on at least four streams, reduce or eliminate threats from non-native trout species in at least four streams, and improve habitat in small or marginal recovery streams in at least three streams.

Actions: The following actions are identified in the draft revised Apache Trout Recovery Plan and the NFWF business plan. The threats addressed correspond to the major threats identified in the recovery plan and the business plan, using the following numbers:

1) Non-native trout occupying historical Apache trout habitat.
2) Marginal habitat in some of the smaller recovery streams.
3) Artificial fish barrier failure, resulting in non-native trout reinvasion into recovery habitats.
4) Potential impacts of climate change on trout streams

Action	Recovery Plan Action Number	Federal Fiscal Year	Spotlight Species Action Plan Threat Addressed	Parties	Estimated Costs (in 1,000s)
Mechanical removal of brown trout in three WMAT streams	1.3	2010-2014	1, 2, 3	USFWS, WMAT-WORD	75 per year
Barrier evaluations	1.2	2010-2014	3	AGFD, USFS, USFWS, WMAT-WORD	75 per year
Barrier maintenance: Stinky Creek, East Fork LCR (n=2), West Fork Black River (n=2)	1.2	2010-2014	1, 3	AGFD, USFS, USFWS, WMAT-WORD	50 per barrier (250 total)
Habitat and population monitoring	1.6	2010-2014	1, 2, 3, 4	AGFD, USFS, USFWS, WMAT-WORD	150 per year (750 total)
Habitat restoration implementation	1.0	2010-2014	2, 4	AGFD, USFS, USFWS, WMAT-WORD	350
NEPA for West Fork Black River fish barrier	1.1	2010	1, 2, 3, 4	AGFD, USFS	100
Conklin Creek barrier repair	1.2	2010	1, 3	AGFD, USFS	75
Stocking pure Apache trout in Conklin Creek	1.4	2010	1, 3	AGFD, USFS, USFWS, WMAT-WORD	25
Bear Wallow renovation NEPA	1.3	2010	1, 3	AGFD, USFS, USFWS, SCAT	25
Barrier maintenance NEPA (programmatic)	1.1	2010-2012	1, 3	AGFD, USFS	100
Habitat restoration evaluations & NEPA	1.1	2010-2012	2, 4	AGFD, USFS, USFWS, WMAT-WORD	240
Wild fish health surveys	3.2	2011	4	AGFD, USFWS, WMAT-WORD	50
West Fork Black River barrier construction phase 1	1.2	2011	3	AGFD, USFS	250
Bear Wallow Creek chemical renovation	1.3	2010	1, 3	AGFD, USFS, USFWS, SCAT	50
West Fork Black River barrier construction phase 2	1.2	2012	3	AGFD, USFS	250
West Fork Black River complex chemical renovation	1.3	2012	1	AGFD, USFS, USFWS	100
Stocking pure Apache trout in Bear Wallow Creek	1.2	2012	1, 3	AGFD, USFS, USFWS, SCAT	25
West Fork Black River complex Apache trout stocking	1.4	2013	1, 3	AGFD, USFS, USFWS, WMAT-WORD	25

Role of other agencies: The U.S. Fish and Wildlife Service's (Service) Arizona Fish and Wildlife Conservation Office, White Mountain Apache Tribe's Wildlife and Outdoor Recreation Department (WMAT-WORD), Arizona Game and Fish Department (AGFD), U.S. Forest Service's (USFS) Apache-Sitgreaves National Forests, San Carlos Apache Tribe (SCAT), and Trout Unlimited (TU) are all key agencies in conservation and recovery activities for Apache trout. AGFD and WMAT-WORD are largely responsible for managing, monitoring, and setting fishing regulations for the species and coordinate closely with the Service on these activities. The USFS and WMAT-WORD are largely responsible for managing the Apache trout habitat. TU has provided non-federal matching funds and in-kind contributions, as well as administered grants from NFWF to aid in recovery actions.

Role of other ESA programs: Restoration projects require ESA section 7 compliance. The Service's Arizona Ecological Services Field Office prepares biological opinions for recovery projects involving Apache trout.

Role of other FWS programs: The Arizona Fish and Wildlife Conservation Office is a key player in all restoration projects in terms of environmental compliance (intra-service consultation), planning, logistics, and on the ground implementation of the projects. The Alchesay-Williams Creek National Fish Hatchery complex is currently the only hatchery raising Apache trout to meet recreational demand.

Additional funding analysis: In 2008, NFWF entered into a 10-year business plan to provide $3,979,000 in funding to Apache trout recovery and management activities. If additional funding were made available the following actions (not covered under the NFWF grant, but still needed to conserve, recover, and manage the species) could be explored:

- Renovation of Alchesay-Williams Creek National Fish Hatchery complex and Silver Creek State Fish Hatchery to allow for the hatchery to also maintain and produce "recovery" fish rather than its current Apache trout focus on recreational fish.

- Analysis of habitat data: there is decades of habitat data that has been collected, however, it needs to synthesized and analyzed.

- Redesign the culvert above the Conklin Creek barrier (currently uses culvert but barrier/culvert design has failed), remove existing culvert and install new road and culvert that is also designed to be a fish barrier. The current barrier may require continuous maintenance.

- Contracting National Environmental Policy Act (NEPA) compliance could significantly shorten project completion times, and increase the amount on-the-ground recovery actions. Current USFS workload and funding shortages have caused significant delays in completion of USFS-required NEPA to conduct recovery actions on USFS lands (barrier maintenance and repair, renovations, habitat enhancement, etc.).

Literature Cited:

National Fish and Wildlife Foundation. 2008. A business plan for the conservation of Apache trout. National Fish and Wildlife Foundation, Washington DC, 23 pp.

U.S. Fish and Wildlife Service. 1983. Recovery plan for Arizona trout, *Salmo apache*, Miller, 1972. Apache Trout Recovery Team. USFWS, Albuquerque, New Mexico, 38 pp.

U.S. Fish and Wildlife Service. 2007. Draft Apache Trout Recovery Plan, Second Revision. Albuquerque, New Mexico, 59 pp.

Project Leader
Arizona Fish and Wildlife Conservation Office

6-4-09
Date

Field Supervisor
Arizona Ecological Services Field Office

8/4/09
Date